

BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

DOCKET NO. 2013-298-E

In the Matter of	)	
	)	
Application of Duke Energy Carolinas, LLC	)	AMENDED APPLICATION
for Approval of New Cost Recovery Mechanism	)	SUPPORT TESTIMONY OF
and Portfolio of Demand-Side Management and	)	JANE L. MCMANEUS FOR
Energy Efficiency Programs	)	DUKE ENERGY CAROLINAS, LLC
	)	

1    **Q.     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    A.     My name is Jane L. McManeus. My business address is 526 South Church Street,  
3           Charlotte, North Carolina.

4    **Q.     BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5    A.     I am Managing Director, Rates for Duke Energy Carolinas LLC (“Duke Energy  
6           Carolinas” or the “Company”).

7    **Q.     DID YOU PREVIOUSLY SUBMIT DIRECT TESTIMONY IN THIS**  
8           **PROCEEDING?**

9    A.     Yes, I did.

10   **Q.     WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

11   A.     I discuss the mechanics and calculations of Rider EE under the proposed  
12           mechanism and the resulting billing factors for year one of the new portfolio  
13           (“Vintage 2014”) pursuant to the Company’s Amended Application and discuss  
14           the proposed revisions to the Company’s Original Application filed with the  
15           Public Service Commission of South Carolina on August 1, 2013.

16   **Q.     PLEASE DESCRIBE THE REVISED AND NEW EXHIBITS ATTACHED**  
17           **TO YOUR TESTIMONY.**

18   A.     McManeus Revised Exhibit 1 shows the estimated annual revenue requirements  
19           and estimated annual rider amounts in cents per kWh for each of the four years  
20           (2014 through 2017) for the Company’s proposed portfolio of EE and DSM  
21           programs. Page 1 of McManeus Revised Exhibit 1 provides this information for  
22           residential EE and DSM programs. Page 2 provides this information for non-  
23           residential EE and DSM programs. The revenue requirements are comprised of

1 program costs, an incentive based on shared savings and net lost revenues, as  
2 discussed below in my testimony. McManeus Revised Exhibit 3 provides  
3 updated allocation factors to reflect kilowatt-hour sales at the generation level.  
4 McManeus Revised Exhibit 5 is the tariff sheet for Rider EE (SC) that shows the  
5 updated rates per kWh for Vintage 2014. Finally, new McManeus Exhibit 6  
6 demonstrates the allocation of incentive amounts based on system results to South  
7 Carolina retail customers.

8 **Q. WERE MCMANEUS REVISED EXHIBITS 1, 3, 5 AND MCMANEUS**  
9 **EXHIBIT 6 PREPARED BY YOU OR AT YOUR DIRECTION AND**  
10 **SUPERVISION?**

11 A. Yes, they were.

12 **Q. PLEASE PROVIDE AN OVERVIEW OF THE REVISED PROPOSED**  
13 **COST RECOVERY MECHANISM.**

14 A. In accordance with S.C. Code Ann. § 58-37-20 (Cum.Supp. 2012),the Company  
15 is requesting approval for an annual rider to collect revenue equal to its incurred  
16 program costs for a rate period plus a Portfolio Performance Incentive (“PPI”)  
17 based on shared savings achieved by the Company’s DSM and EE programs. In  
18 addition, the Company is requesting recovery of net lost revenues for the rate  
19 period for its EE programs. Program costs are the reasonable and prudent  
20 expenses expected to be incurred by the Company during a vintage year for the  
21 purpose of adopting and implementing new DSM and EE measures approved by  
22 the Commission.

1           The Company proposes to continue the practice previously approved by  
2           the Commission in Docket No. 2009-226-E Application of Duke Energy  
3           Carolinas, LLC for Authority to Adjust and Increase Its Electric Rates and  
4           Charges, for the modified Save-a-Watt pilot program which allowed the Company  
5           to recover net lost revenues associated with a particular vintage for a maximum of  
6           36 months or the life of the measure, and provided that the recovery of net lost  
7           revenues shall cease upon the implementation of new rates in a general rate case  
8           to the extent that the new rates are set to recover net lost revenues.

9           The recovery mechanism employs a vintage year concept. Because the  
10          recovery includes recovery of net lost revenues associated with each vintage of  
11          EE programs for a 36 month period after the installation of a measurement unit,  
12          the recovery of net lost revenues applicable to EE programs will extend several  
13          years beyond each vintage, unless terminated or adjusted by another regulatory  
14          action.

15          In each of its annual rider filings, the Company plans to perform an annual  
16          true-up process for each vintage. The true-up will reflect actual participation and  
17          verified evaluation, measurement, and verification (“EM&V”) results for the most  
18          recently completed vintage, applied in the same manner as employed in its  
19          Modified Save-a-Watt pilot program.<sup>1</sup> Any difference between amounts collected  
20          from customers and amounts authorized to be collected based on actual results

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<sup>1</sup> As described in Docket No. 2012-303-E in the Company’s Application for Approval of Rider 4, EM&V results will be applied for the purposes of truing up vintages as of the first day of the month immediately following the month in which the study participation sample for the EM&V was completed. As new EM&V results become available, they will be utilized until they are superseded by new EM&V results, if any.

1 will be flowed through to customers or will be collected from customers, as the  
2 case may be, with interest at the Company's approved after-tax weighted average  
3 cost of capital. The Company expects that most EM&V will be available in the  
4 timeframe needed to true-up each vintage in the following calendar year.  
5 However, if any EM&V results for a vintage are not available in time for  
6 inclusion in the Company's next annual rider filing then an appropriate  
7 adjustment will be made in the next following annual filing.

8 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER THE COST OF**  
9 **EXISTING DSM PROGRAMS FROM SOUTH CAROLINA RETAIL**  
10 **CUSTOMERS DURING THE PERIOD 2014 – 2017?**

11 A. The Company proposes to continue its current practice of recovering the cost of  
12 Duke Energy Carolinas' Interruptible Service and Stand-By Generator programs  
13 ("Existing DSM Programs") as a separate component of its EE rider. Such costs  
14 include the cost of bill credits and amounts paid to customers participating in  
15 these programs. The program costs for Existing DSM programs will be  
16 determined on a system basis and allocated to SC retail customer classes based on  
17 the class contribution to system peak demand.

18 **Q. WHAT ARE THE COMPANY'S REVISED PROPOSED BILLING**  
19 **FACTORS APPLICABLE TO SOUTH CAROLINA JURISDICTIONAL**  
20 **ELECTRIC CUSTOMERS FOR THE NEW PORTFOLIO?**

21 A. The Company's proposed billing factor for the new portfolio for the rate period  
22 January 1, 2014 through December 31, 2014 is 0.3182 cents per kWh (including  
23 gross receipts tax and regulatory fee) for Duke Energy Carolinas' South Carolina

1 retail residential customers. For non-residential customers, the amounts differ  
2 depending upon customer elections of participation. In addition, the non-  
3 residential rates will apply to those rate schedules within the non-residential  
4 customer class that have Duke Energy Carolinas DSM/EE program options in  
5 which they can participate. The following chart depicts the options and rider  
6 amounts (shown on a cents per kWh basis, including gross receipts tax and  
7 regulatory fee):

8

<b>Non-Residential Billing Factors Vintage 2014</b>	<b>¢/kWh</b>
Vintage 2014 EE participant	0.1103
Vintage 2014 DSM participant	0.0990

9  
10

11 **Q. HOW ARE THE PROPOSED BILLING FACTORS FOR THE NEW**  
12 **PORTFOLIO CALCULATED?**

13 A. The billing factors are computed separately for EE and DSM measures by  
14 dividing the revenue requirements for each customer class, residential and non-  
15 residential, by the forecasted sales for the rate period for the customer class. For  
16 non-residential rates, the forecasted sales exclude the estimated sales to customers  
17 who have elected to opt out of paying Rider EE. Because non-residential  
18 customers would be allowed to opt out of DSM and/or EE programs separately in  
19 an annual election, non-residential billing factors will be separately computed for  
20 each vintage.

21 Revenue requirements for each customer class are equal to the sum of  
22 program costs incurred by the Company, a PPI amount computed based on shared  
23 savings, and net lost revenues.

1   **Q.   HOW ARE REVENUE REQUIREMENTS FOR THE PROPOSED**  
2       **BILLING FACTORS ALLOCATED TO THE SOUTH CAROLINA**  
3       **RETAIL JURISDICTION AND TO THE RESIDENTIAL AND NON-**  
4       **RESIDENTIAL RATE CLASSES?**

5   A.   The new portfolio revenue requirements related to program costs and incentives  
6       for EE programs targeted at retail residential customers across South Carolina and  
7       North Carolina are allocated to South Carolina retail jurisdiction based on the  
8       ratio of South Carolina retail kWh sales (grossed up for line losses) to total retail  
9       kWh sales (grossed up for line losses), and then recovered only from South  
10      Carolina residential customers. The revenue requirements related to program  
11      costs and incentives for EE programs targeted at retail non-residential customers  
12      across South Carolina and North Carolina are allocated to South Carolina retail  
13      jurisdiction based on the ratio of South Carolina retail kWh sales (grossed up for  
14      line losses) to total retail kWh sales (grossed up for line losses), and then  
15      recovered from only South Carolina retail non-residential customers. For DSM  
16      programs, because residential and non-residential programs are similar in nature,  
17      the aggregated revenue requirement related to program cost and incentives for all  
18      retail DSM programs targeted at both residential and non-residential customers  
19      across North Carolina and South Carolina are allocated to South Carolina retail  
20      jurisdiction based on South Carolina retail contribution to total retail peak  
21      demand. Both residential and non-residential customer classes are allocated a  
22      share of total system DSM revenue requirements based on each group's  
23      contribution to total retail peak demand. The portion of revenue requirements

1 related to net lost revenues is not allocated to South Carolina retail jurisdiction,  
2 but instead is specifically computed based on the kW and kWh savings of South  
3 Carolina retail customers. The allocation factors used in DSM/EE EMF true-up  
4 calculations for each vintage will be based on the Company's most recently filed  
5 Cost of Service studies at the time that the Rider EE (SC) filing incorporating the  
6 true-up is made. If there are subsequent true-ups for a vintage, the allocation  
7 factors used will be the same as those used in the original DSM/EE EMF true-up  
8 calculations.

9 **Q. PLEASE DESCRIBE THE NET LOST REVENUES FOR WHICH THE**  
10 **COMPANY IS REQUESTING RECOVERY THROUGH THE 2014**  
11 **BILLING FACTORS.**

12 A. The Company has included in the revenue requirements an estimate of lost  
13 revenues, net of found revenues, for Vintage 2014 using a "half-year convention."  
14 The Company has assumed participation in Vintage 2014 is spread over the  
15 calendar year. To account for this, Vintage 2014 includes only one-half of the  
16 estimated net lost revenue for 2014 in the proposed billing factors. Also, for  
17 estimating purposes, the net lost revenue amount for the first year is calculated  
18 using estimated kW and kWh savings by South Carolina retail customers and the  
19 South Carolina retail tariff rates approved at the time the Company was preparing  
20 its estimates, resulting from its 2011 general rate case which became effective  
21 February 1, 2012. Witness Duff's Exhibit 3 filed with his direct testimony  
22 provides net lost revenue estimates by program.

23 **Q. HOW IS THE PPI CALCULATED?**



1 A. As discussed by Witness Duff, the dollar amount of PPI is calculated by  
2 multiplying the shared savings achieved by the system portfolio of DSM and EE  
3 programs by 11.5%. The Revised Application testimony of Company witness  
4 Duff further describes the specifics of the PPI calculation. In addition, Duff  
5 Revised Exhibit 1 shows the estimated PPI for vintage years 2014 – 2017 by  
6 program type and customer class. As shown on McManeus Exhibit 6, the system  
7 amount of PPI is then allocated to South Carolina retail customer classes in order  
8 to derive customer rates.

9 **Q. IS THE RATE FOR NON-RESIDENTIAL CUSTOMERS ADJUSTED FOR**  
10 **THE IMPACT OF “OPT-OUT” CUSTOMERS?**

11 A. Yes. The impact of opt-out results is also considered in the development of the  
12 Rider EE billing rates for non-residential customers. Since the revenue  
13 requirements will not be recovered from non-residential customers that opt-out of  
14 the Company’s programs, the forecasted sales used to compute the rate per kWh  
15 for non-residential rates exclude sales of customers that have opted out of the  
16 vintage to which the rate applies.

17 **Q. HOW ARE AVOIDED COSTS INCORPORATED INTO THE**  
18 **CALCULATION OF THE PPI?**

19 A. As discussed by Witness Duff, the calculation of the PPI is based on avoided cost  
20 savings achieved through the implementation of the Company’s DSM and EE  
21 programs. The avoided cost benefits incorporated in the PPI calculations include  
22 avoided capacity costs, avoided energy costs, and avoided transmission and  
23 distribution costs. The avoided capacity and energy costs used in this filing, for

1 purposes of determining program cost-effectiveness, align with the avoided  
2 capacity and energy cost data used in the update of the Company's Schedule PP  
3 (SC) rates approved by the PSCSC in March 2013 in Order No. 2013-184,  
4 Docket. No. 1995-1192-E. The avoided capacity cost is based on the avoided  
5 combustion turbine capacity costs as used to derive the Schedule PP (SC) rates.  
6 The avoided energy costs were derived from Integrated Resource Plan (IRP)  
7 model runs in which a comparison was made of the change in hourly system  
8 energy costs assuming EE/DSM load reductions occur and are not served by  
9 system resources vs. runs in which the reductions do not occur and therefore  
10 system resources must serve the higher load. The IRP model runs were consistent  
11 with the model runs used to produce the avoided energy costs used to derive the  
12 Schedule PP (SC) rates; however, the model runs used an hourly load profile  
13 specific to energy efficiency reductions rather than hourly reductions assumed for  
14 QF purchases. The methodologies used to determine the avoided costs used in the  
15 cost-effectiveness calculations of the proposed new portfolio of programs are also  
16 consistent with and include the same components as those used in the currently  
17 approved modified Save-a-Watt portfolio.

1   **Q.    HOW DOES THE COMPANY PLAN TO UPDATE THE AVOIDED COST**  
2       **RATES USED IN THE COMPUTATION OF THE PPI?**

3    A.    The Company updates its avoided cost calculations biennially in accordance with  
4           the Public Utility Regulatory Policies Act of 1978. The Company proposes that  
5           the rates used in the Company’s calculations should remain fixed unless total  
6           avoided capacity and energy costs as computed biennially change by 20% or  
7           more. In such case, either the Company or the Office of Regulatory Staff may  
8           request that impacts of the change in avoided cost be reviewed and may  
9           recommend appropriate changes, if any, to be applied prospectively to the  
10          Company’s portfolio of programs for the purpose of determining program cost-  
11          effectiveness and hence the incentive achievement level for the new portfolio.

12   **Q.    HOW DO CHANGES TO THE COMPANY’S OPT-OUT PROVISIONS**  
13       **AFFECT COST RECOVERY UNDER THE REVISED PROPOSED**  
14       **MECHANISM?**

15   A.    In his testimony filed in the Company’s Original Application, Witness Duff  
16          discusses an enhancement that is being proposed to the current opt-out provisions  
17          in order to increase participation in the Company’s programs. The Company will  
18          continue its practice of charging Rider EE to all customers that have not elected to  
19          opt-out during an enrollment period and which participate in any vintage of  
20          programs. Such customers would be subject to all true-up provisions of the  
21          approved Rider EE for any vintage in which the customers participate. In  
22          addition, customers that elect to begin participating in the Company’s EE and  
23          DSM programs during the proposed special “opt-in period” during March of each

1 year will be retroactively billed the applicable Rider EE amounts back to January  
2 1 of the vintage year, such that they will pay the appropriate Rider EE amounts  
3 for the full rate period.

4 **Q. HOW WERE THE NET LOST REVENUES FOR THE NEW PORTFOLIO**  
5 **CALCULATED?**

6 A. Net lost revenues were estimated by multiplying the portion of the Company's  
7 tariff rates that represent the recovery of fixed costs by the estimated South  
8 Carolina retail kW and kWh reductions applicable to EE programs by rate  
9 schedule, and reducing this amount by estimated found revenues. As explained in  
10 Witness Duff's direct testimony, found revenues result from activities undertaken  
11 by the Company that would directly or indirectly result in an increase in customer  
12 demand or energy consumption within Duke Energy Carolinas' service territory.  
13 The Company calculated the portion of South Carolina retail tariff rates  
14 (including certain riders) representing the recovery of fixed costs by deducting the  
15 recovery of fuel and variable O&M costs from its tariff rates. The lost revenues  
16 totals for residential and non-residential customers were reduced by South  
17 Carolina retail found revenues computed using the weighted average lost revenue  
18 rates for each customer class. The testimony and exhibits of Company Witness  
19 Duff in the Company's Original Application provide information on the actual  
20 and estimated found revenues which offset lost revenues.

21 **Q. DOES THIS CONCLUDE YOUR AMENDED APPLICATION SUPPORT**  
22 **TESTIMONY?**

23 A. Yes, it does.

## Duke Energy Carolinas LLC

For the Years 2014 - 2017

Docket No. 2013-298-E

Estimated Annual Riders Applicable to Residential Customers

## Energy Efficiency Programs

Line	Reference	Year 1	Year 2	Year 3	Year 4
1	Residential EE Program Cost	\$ 11,092,076	\$ 11,475,315	\$ 11,858,615	\$ 12,009,887
2	Residential EE Earned Utility Incentive	\$ 474,839	\$ 575,754	\$ 632,261	\$ 697,669
3	Total EE Program Cost and Incentive Components	\$ 11,566,915	\$ 12,051,069	\$ 12,490,877	\$ 12,707,556
4	Residential DSM Program Cost	\$ 4,046,230	\$ 4,177,901	\$ 4,033,041	\$ 4,206,088
5	Residential DSM Earned Utility Incentive	\$ 920,825	\$ 1,093,683	\$ 1,222,140	\$ 1,305,902
6	Total DSM Program Cost and Incentive Components	\$ 4,967,055	\$ 5,271,585	\$ 5,255,181	\$ 5,511,990
7	Residential Existing DSM Program Revenue Requirement	\$ 806,196	\$ 806,196	\$ 806,196	\$ 806,196
8	Total EE/DSM Program Cost and Incentive Components	\$ 17,340,166	\$ 18,128,850	\$ 18,552,254	\$ 19,025,742
9	Revenue-related taxes and regulatory fees factor	1.004508	1.004508	1.004508	1.004508
10	Total EE Program Cost and Incentive Revenue Requirement	\$ 17,418,336	\$ 18,210,575	\$ 18,635,888	\$ 19,111,510
11	Residential Net Lost Revenues	\$ 3,286,819	\$ 4,719,489	\$ 6,189,201	\$ 6,959,557
12	Total Residential EE Revenue Requirement	\$ 20,705,154	\$ 22,930,064	\$ 24,825,089	\$ 26,071,067
13	Projected SC Residential Sales (kWh)	6,505,979,955	6,582,149,076	6,657,457,067	6,735,691,526
14	SC Residential EE Billing Factor (Cents/kWh)	0.3182	0.3484	0.3729	0.3871

Note: Lines may not add due to rounding

**Duke Energy Carolinas LLC**  
**For the Years 2014 - 2017**  
**Docket No. 2013-298-E**  
**Estimated Annual Riders Applicable to the Non-Residential Customers**

McManeus Revised Exhibit 1 pg. 2

**Non-Residential Energy Efficiency Programs**

Line	Reference	Year 1	Year 2	Year 3	Year 4
1 Non- Residential EE Program Cost	Duff Revised Exhibit 1	\$6,041,479	\$6,487,865	\$7,060,349	\$7,543,575
2 Non-Residential EE Earned Utility Incentive	McManeus Exhibit 6	\$2,559,346	\$2,877,190	\$3,196,029	\$3,559,447
3 Total EE Program Cost and Incentive Components	Line 1 + Line 2	\$8,600,825	\$9,365,054	\$10,256,378	\$11,103,022
4 Revenue-related taxes and regulatory fees factor	1.004508	1.004508	1.004508	1.004508	1.004508
5 Total Non-Residential EE Program Cost and Incentive Revenue Requirement	Line 3 * Line 4	\$8,639,597	\$9,407,272	\$10,302,613	\$11,153,074
6 Non-Residential Net Lost Revenues	Duff Exhibit 3, Line 115	\$748,151	\$2,294,675	\$3,916,001	\$4,857,675
7 Total Non-Residential EE Revenue Requirement	Line 5 + Line 6	\$9,387,748	\$11,701,947	\$14,218,615	\$16,010,749
8 Projected SC Residential Sales (KWh)	McManeus Exhibit 2	8,513,956,840	8,687,696,328	8,857,024,538	9,020,266,247
9 SC Non-Residential EE billing factor (Cents/kWh)	Line 7 / Line 8 * 100	0.1103	0.1347	0.1605	0.1775

Note: Lines may not add due to rounding.

**Non- Residential DSM Programs**

	Year 1	Year 2	Year 3	Year 4
10 Non-Residential DSM Program Cost	Duff Revised Exhibit 1 \$5,459,739	\$5,637,409	\$5,441,943	\$5,675,442
11 Non-Residential DSM Earned Utility Incentive	McManeus Exhibit 6 \$1,242,506	\$1,475,750	\$1,649,082	\$1,762,106
12 Total Non-Residential DSM Program Cost and Incentive Components	Line 10 + Line 11 \$6,702,245	\$7,113,159	\$7,091,024	\$7,437,548
13 Non-Residential Existing DSM Program Revenue Requirement	McManeus Exhibit 4 \$1,087,832	\$1,087,832	\$1,087,832	\$1,087,832
14 Total Non-Residential DSM Revenue Requirement	Line 12+ Line 13 \$7,790,077	\$8,200,991	\$8,178,856	\$8,525,380
15 Revenue-related taxes and regulatory fees factor	1.004508	1.004508	1.004508	1.004508
16 Total Non-Residential DSM Revenue Requirement	Line 14 * Line 15 \$7,825,195	\$8,237,961	\$8,215,727	\$8,563,812
17 Projected SC Non-Residential Sales (KWh)	McManeus Exhibit 2 7,902,098,311	8,075,837,799	8,245,166,009	8,408,407,718
18 SC Non-Residential DSM billing factor	Line 16 / Line 17 * 100 0.0990	0.1020	0.0996	0.1018

Duke Energy Carolinas LLC  
For the Period January 1, 2012 - December 31, 2012  
Docket Number 2013-298-E  
Allocation Factor Estimates 2014-2017

McManeaus Revised Exhibit 3

**Sales Allocator - 2012**

1	NC Retail/MWH Sales, at Generation	Company Records	MWH
2	SC Retail MWH Sales (Excl. Greenwood), at Generation	Company Records	57,055,402
3	Total Retail, Excluding Greenwood, at Generation	Line 1 + Line 2	21,269,380
			78,324,782
4	Greenwood Retail MWH Sales, at Generation	Company Records	53,559
5	Total Retail, including Greenwood, at Generation	Line 3 + Line 4	78,378,341
6	Allocation 1 to state based on kWh sales		
	SC Retail	Line 2 / Line 5	27.13681%

**Demand Allocators - 2012**

	NC MW	SC MW	Total MW
7 Residential	5,588,503	1,720,365	7,308,868
8 Non Residential (SC - Excl. Greenwood)	6,397,286	2,321,357	8,718,643
9 Greenwood	-	13,489	13,489
10 Total	11,985,789	4,055,211	16,041,000
11 Wholesale Peak Demand			1,010,270
12 Total System Peak Demand			17,051,270

**Allocation 2 to state based on peak demand**

13	SC Retail, Excl. Greenwood	(Line 7, SC + Line 8, SC) / Line 10 Total	25.19620%
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**Allocation 3 SC res vs non-res Peak Demand to retail system peak**

14	SC Residential	Line 7, SC / Line 10 Total	10.72480%
15	SC Non-residential	Line 8, SC / Line 10 Total	14.47140%

**Allocation 4 SC res vs non-res Peak Demand to retail system peak for Existing DSM**

16	SC Residential	Line 7, SC / Line 12 Total	10.08937%
17	SC Non-residential	Line 8, SC / Line 12 Total	13.61398%

RIDER EE (SC)  
ENERGY EFFICIENCY RIDERAPPLICABILITY (South Carolina Only)

Service supplied under the Company's rate schedules is subject to approved adjustments for new energy efficiency and demand-side management programs approved by the Public Service Commission of South Carolina (PSCSC). The Rider Adjustments are not included in the Rate Schedules of the Company and therefore, must be applied to the bill as calculated under the applicable rate. Cost recovery under Rider EE consists of two four-year term programs, years 2009 – 2013 and years 2014 – 2017 as outlined separately below. This rider applies to service supplied under all rate schedules for program years 2009 – 2013 but does not apply to Rate Schedules, OL, FL, PL, GL and NL for program years 2014 – 2017.

The Rider will recover the cost of Duke Energy Carolinas' Interruptible Service and Stand-By Generator programs ("Existing DSM Programs") based on the cost of bill credits and amounts paid to customers participating on these programs ("Program Costs"). Revenue requirements will be determined on a system basis and allocated to SC retail customer classes based on the class contribution to system peak demand.

I. PROGRAM YEARS 2009-2013 (Vintages 1-4)GENERAL PROVISIONS

This Rider will recover the cost of Duke Energy Carolinas' Save-a-Watt ("SAW") energy efficiency and demand-side management programs, using the method approved by the PSCSC, for programs implemented over a 4 year period (*i.e.*, comprising four 12-month program years or "Vintage Years"). In each year this Rider will include components to recover revenue requirements related to demand-side management and energy efficiency programs implemented in that vintage, as well as lost revenues resulting from the energy efficiency programs. Lost revenues associated with each vintage will be recovered for 36 months upon implementation. As a result the Rider will continue beyond the 4 year period to fully recover lost revenues for programs in years 3 and 4.

Revenue requirements for SAW demand-side management programs will be determined on a system basis and allocated to South Carolina retail customers based on the class contribution to system retail peak demand. Revenue requirements for SAW energy efficiency programs will be determined on a system basis and allocated to all South Carolina retail customer classes based on SC retail contribution to system retail sales. Residential customers will pay for the allocated cost of residential programs; non-residential customers will pay for the allocated cost of non-residential programs.

Revenue requirements will be determined on a system basis and allocated to South Carolina retail customers based on the South Carolina retail contribution to system retail peak demand for demand side management programs and South Carolina retail contribution to system retail kWh sales for energy efficiency programs. Residential customer classes will pay for residential programs and non-residential customer classes will pay for non-residential programs through methods found appropriate by the Commission for demand-side management and energy efficiency programs, respectively. All allocation factors will be based on the Company's most recently completed cost of service study utilizing the allocation method approved by PSCSC in the Company's most recent general rate proceeding and will exclude the amounts related to customers that elect to opt out of this Rider.

TRUE-UP PROVISIONS

Rider amounts for SAW programs will initially be determined based on estimated kW and kWh impacts related to expected customer participation in the programs, and will be true-up as actual customer participation and actual kW and kWh impacts are verified.

Participation true-ups: After the first year, the Rider will include a true-up of previous Rider amounts billed to reflect actual customer participation in the programs.

Measurement and verification true-up: EM&V activities and results will be included in a mid-term EM&V-based true-up process that will be reflected in Vintage Year 3 Rider EE collections. A final EM&V true-up reflected in Vintage Year 6 Rider EE collections will incorporate all EM&V studies completed since the mid-term EM&V true-up. EM&V results will include measure-level savings adjustments and net-to-gross analysis. In addition, the mid-term and final true-ups will



RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

incorporate the most recent EM&V results in the avoided cost true-up, the lost revenue true-up, and the earnings cap true-up. Earnings cap true-up: In the sixth year a true up will be billed, if applicable, to refund amounts collected through the Rider in excess of the earnings cap, in accordance with the following levels of achievement and allowed return on investment.

<u>Percentage Actual Target Achievement</u>	<u>Return on Investment Cap on Program Costs Percentage</u>
>=90%	15%
80% to 89%	12%
60% to 79%	9%
< 60%	5%

DETERMINATION OF ENERGY EFFICIENCY RIDER ADJUSTMENT

Energy Efficiency Adjustments (EEA) will be applied to the energy (kilowatt hours) billed of all rate schedules for each vintage as determined by the following formula:

EEA Residential (expressed as cents per kWh) = SAW Residential Adjustment + Existing DSM Residential Adjustment

SAW Residential Adjustment = Residential Avoided Cost Revenue Requirement + Residential Lost Revenues / Forecasted Residential kWh Sales for the Rider billing period

Where

Residential Avoided Cost Revenue Requirement = (Residential Demand Side Management Program Avoided Cost Revenue Requirement X 75%) + (Residential Energy Efficiency Program Avoided Cost Revenue Requirement X 55%)

And

Existing DSM Residential Adjustment = Non-SAW Residential Program Costs / Forecasted Residential kWh Sales for the Rider billing period

EEA Non-residential (expressed as cents per kWh) = SAW Non-residential Adjustment + Existing DSM Non-residential Adjustment

SAW Non-residential Adjustment = Non-residential Avoided Cost Revenue Requirement + Non-residential Lost Revenues / Forecasted Non-residential kWh Sales (excluding opt out sales) for the Rider billing period

Where

Non-residential Avoided Cost Revenue Requirement = (Non-residential Demand Side Management Program Avoided Cost Revenue Requirement X 75%) + (Non-residential Energy Efficiency Program Avoided Cost Revenue Requirement X 55%)

And

Existing DSM Non-residential Adjustment = Non-SAW Non-residential Program Costs / Forecasted Non-residential kWh Sales (excluding opt out sales) for the Rider billing period

II. PROGRAM YEARS BEGINNING 2014GENERAL PROVISIONS

This Rider will recover the cost of new energy efficiency and demand-side management programs, using the method approved by the PSCSC, for programs implemented during 12-month program years (or "Vintage Years").

RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

TRUE-UP PROVISIONS

Rider amounts will initially be determined based on estimated kW and kWh impacts related to expected customer participation in the programs, and will be true-up on an annual basis as actual customer participation and actual kW and kWh impacts are verified. The true-up will reflect actual participation and EM&V results for the most recently completed vintage. If a customer participates in any vintage of programs, the customer is subject to the true-ups for any vintage of programs in which the customer participated.

RIDER EE OPT OUT PROVISION FOR QUALIFYING NON-RESIDENTIAL CUSTOMERS

The Rider EE increment applicable to energy efficiency programs and/or demand-side management programs will not be applied to the energy charge of the applicable rate schedule for Customers qualified to opt out of the programs where:

- a. The Customer attests or certifies to the Company that it has performed or had performed for it an energy audit or analysis within the three year period preceding the opt out request and has implemented or has plans for implementing the cost-effective energy efficiency measures recommended in that audit or analysis; and
- b. The Customer is served under an electric service agreement where the establishment is classified as a "manufacturing industry" by the Standard Industrial Classification Manual published by the United States Government, and where more than 50% of the electric energy consumption of such establishment is used for its manufacturing processes.

For Customers who elect to opt out of Energy Efficiency Programs, the following provisions also apply:

- Qualifying customers may opt out of the Company's energy efficiency programs each calendar year only during the designated annual two month enrollment period. For the Rider EE 2014 Program Year, the enrollment period begins November 1, 2013 and ends December 31, 2013.
- Customers may not opt out of individual energy efficiency programs offered by the Company. The choice to opt out applies to the Company's entire portfolio of energy efficiency programs.
- If a customer participates in any vintage of energy efficiency programs, the customer, irrespective of future opt-out decisions, remains obligated to pay the remaining portion of the lost revenues for each vintage of efficiency programs in which the customer participated.
- Customers who elect to opt out during the two-month annual enrollment period immediately prior to the new Rider EE becoming effective may elect to opt in to the Company's energy efficiency program during the first 5 business days of March each calendar year. Customers making this election will be back-billed to the effective date of the new Rider EE.

For Customers who elect to opt out of Demand Side Management Programs, the following provisions also apply:

- Qualifying customers may opt out of the Company's demand-side management program during the enrollment period between November 1, and December 31 immediately prior to a new Rider EE becoming effective on January 1 of the applicable year. (Qualifying new customers have sixty days after beginning service to opt out).
- If a customer elects to participate in a demand-side management program, the customer may not subsequently choose to opt out of demand side management programs for three years.
- Customers who elect to opt out during the two-month annual enrollment period immediately prior to the new Rider EE becoming effective may elect to opt in to the Company's demand-side management program during the first 5 business days of March each calendar year. Customers making this election will be back-billed to the effective date of the new Rider EE.

Any qualifying non-residential customer that has not participated in an energy efficiency or demand-side management program may opt out during any enrollment period, and have no further responsibility to pay Rider EE amounts associated with the Customer's opt out election for energy efficiency and/or demand-side management programs.

RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

**ENERGY EFFICIENCY RIDER ADJUSTMENTS (EEA) FOR ALL PROGRAM YEARS**

The Rider EE amounts applicable to the residential and nonresidential rate schedules for the period January 1, 2014 through December 31, 2014 including revenue-related taxes and utility assessments are as follows:

<b><u>Residential</u></b>	Vintage 1, 2, 3,4	0.2820¢ per kWh	
	Vintage 2014	<u>0.3182¢ per kWh</u>	
	<b>Total Residential</b>	<b>0.6002¢ per kWh</b>	
<b><u>Nonresidential</u></b>		<b><u>Energy Efficiency</u></b>	<b><u>Demand Side Management</u></b>
	Vintage 1	0.0029¢ per kWh	NA
	Vintage 2	0.0174¢ per kWh	NA
	Vintage 3	0.1286¢ per kWh	0.0312 ¢ per kWh
	Vintage 4	0.0153¢ per kWh	NA
	2014 Vintage*	0.1103¢ per kWh	0.0990 ¢ per kWh
	Total Vintage 1, 2, 3,4,2014	0.2745¢ per kWh	0.1302¢ per kWh
	<b>Total Nonresidential</b>	<b>0.4047¢ per kWh</b>	

**\*Not Applicable to Rate Schedules OL, FL, PL, GL, and NL**

Each factor listed under Nonresidential is applicable to nonresidential customers who are not eligible to opt out and to eligible customers who have not opted out. If a nonresidential customer has opted out of a Vintage(s), then the applicable energy efficiency and/or demand-side management charge(s) shown above for the Vintage(s) during which the customer has opted out, will not apply to the bill.

# Duke Energy Carolinas LLC

## Shared Savings Incentive Calculation - SC Retail Allocation

Docket No. 2013-298-E

Estimate January 1, 2014- December 31, 2017

Line		2014	2015	2016	2017
1	Shared Savings - Res EE	\$ 1,749,798	\$ 2,121,672	\$ 2,329,903	\$ 2,570,933
2	SC Retail Allocation Factor - Res	27.13681%	27.13681%	27.13681%	27.13681%
3	SC Retail Shared Savings - Res EE	\$ 474,839	\$ 575,754	\$ 632,261	\$ 697,669
4	Shared Savings - DSM				
5	SC Retail Allocation Factor - Res	\$ 8,585,943	\$ 10,197,703	\$ 11,395,453	\$ 12,176,471
6	SC Retail Shared Savings - Res DSM	10.72480%	10.72480%	10.72480%	10.72480%
		\$ 920,825	\$ 1,093,683	\$ 1,222,140	\$ 1,305,902
7	Shared Savings - Non Res EE				
8	SC Retail Allocation Factor - Non Res	\$ 9,431,272	\$ 10,602,534	\$ 11,777,469	\$ 13,116,675
9	SC Retail Shared Savings- Non Res EE	27.13681%	27.13681%	27.13681%	27.13681%
		\$ 2,559,346	\$ 2,877,190	\$ 3,196,029	\$ 3,559,447
10	Shared Savings - DSM				
11	SC Retail Allocation Factor - Non Res	\$ 8,585,943	\$ 10,197,703	\$ 11,395,453	\$ 12,176,471
12	SC Retail Shared Savings - Non Res DSM	14.47140%	14.47140%	14.47140%	14.47140%
		\$ 1,242,506	\$ 1,475,750	\$ 1,649,082	\$ 1,762,106

BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

DOCKET NO. 2013-298-E

In the Matter of	)	
	)	AMENDED APPLICATION
Application of Duke Energy Carolinas, LLC	)	SUPPORT TESTIMONY OF
for Approval of New Cost Recovery Mechanism	)	TIMOTHY J. DUFF
and Portfolio of Demand-Side Management and	)	FOR
Energy Efficiency Programs	)	DUKE ENERGY CAROLINAS, LLC

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1 Carolina Coastal Conservation League (“CCL”), the National Resource  
2 Defense Council (“NRDC”) and the Sierra Club and filed with the North  
3 Carolina Utilities Commission on August 19, 2013. The Company believes  
4 utilizing the same cost recovery and incentive across its entire operating  
5 system is logical and will alleviate potential administrative complexities that  
6 could arise from employing different cost recovery and incentive mechanisms.  
7 Additionally, many of the intervening parties in the proceeding before this  
8 Commission were parties to the Stipulation in North Carolina. The Company  
9 expects that the interveners’ concerns in North Carolina are the same or very  
10 similar to their concerns and issues in South Carolina and this amended  
11 application will address those concerns and garner the interveners’ support.

12 **Q. ARE ANY OTHER COMPANY WITNESSES PROVIDING**  
13 **TESTIMONY IN SUPPORT OF THE AMENDED APPLICATION?**

14 A. Yes. Company witness Jane McManeus is providing testimony and exhibits  
15 that support the mechanics and calculations of Rider EE under the mechanism  
16 proposed in the Company’s Amended Application.

17 **Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR**  
18 **TESTIMONY.**

19 A. Duff Revised Exhibit 1 provides the projected annual load impacts and the  
20 revenue requirement by program for each vintage year (2014-2017) pursuant  
21 to the Company’s Amended Application. Additionally, attached is a new  
22 exhibit, Duff Exhibit 8, which shows the underlying calculation of the

1 Company's projected shared savings incentives annually over the four year  
2 period 2014-2017.

3 **Q. WERE DUFF REVISED EXHIBIT 1 AND DUFF EXHIBIT 8**  
4 **PREPARED BY YOU OR AT YOUR DIRECTION AND**  
5 **SUPERVISION?**

6 A. Yes, they were.

7 **II. THE AMENDED APPLICATION**

8 **Q. PLEASE PROVIDE AN OVERVIEW OF THE AMENDED**  
9 **APPLICATION.**

10 A. The Amended Application makes no substantive changes to the Company's  
11 proposed portfolio of programs. The application does clarify two non-  
12 residential program offerings that I discuss later in my testimony. The  
13 primary change included in the Amended Application is with respect to the  
14 Company's proposed utility incentive mechanism. Essentially, the Company  
15 proposes to replace the tiered cost plus incentive mechanism introduced in the  
16 original application with the widely accepted shared savings utility incentive  
17 structure. Under the Amended Application, the Company's proposal with  
18 respect to the recovery of program costs, and 36 months of net lost revenues is  
19 unchanged, but the Company will have the opportunity to earn an incentive  
20 that is equivalent to the Company being able to keep 11.5% of net savings  
21 achieved by its portfolio of programs. The Amended Application also  
22 includes the provision that all low income and other non-cost effective  
23 programs shall be excluded from the calculation of shared savings incentive.



1 This provision is designed to ensure that the Company's incentive will not be  
2 negatively impacted when these types of programs are added to the  
3 Company's portfolio in instances where the Commission deems the  
4 advancement of important societal and policy goals supersede the lack of  
5 program cost effectiveness.

6 **Q. WHAT ARE THE BENEFITS OF THE SHARED SAVINGS**  
7 **MECHANISM?**

8 A. The shared savings mechanism is a simple and transparent incentive  
9 mechanism which provides the Company with the appropriate incentive to  
10 cost-effectively deliver to its customers as much energy efficiency ("EE") and  
11 demand side management ("DSM") as possible. The shared savings incentive  
12 mechanism also supports the four fundamental design tenets, described in the  
13 discussion of the Company's initially proposed incentive mechanism. First,  
14 the Company wants to replace Save-a-Watt with an accepted methodology  
15 that provides transparency regarding the amount of incentive the Company is  
16 eligible to earn and actually earns in a given year. The shared savings  
17 mechanism is a widely used utility incentive mechanism and is very similar to  
18 the ones in place for Duke Energy Progress, Inc. Second, the Company  
19 desires an incentive model that ties the Company's incentive to how it  
20 performs related to variables and performance that it can control. The shared  
21 savings mechanism ties the Company incentive to its ability to effectively  
22 manage program costs and optimize the cost effectiveness of the portfolio.  
23 Third, the Company desires a model that aligns with customers' interests and

encourages the Company to be a good steward of the customers' dollars, as opposed to having an incentive that simply rewards the Company for spending more. Fundamentally, a shared savings incentive mechanism motivates and rewards the utility to accomplish two specific outcomes, both of which fundamentally align with customers' interests with respect to EE: (1) it incents the Company to provide a wide array of EE opportunities to customers that will attract participation and deliver significant energy and capacity savings, and (2) it incents the Company to operate and bring its offerings to market in the most cost-effective manner possible because the more cost-effective the portfolio is, the larger the net savings from the portfolio, and hence the larger the utilities' incentive. Fourth, the Company wants an incentive model that, while motivating the Company to get EE and DSM impacts in the most cost-effective manner, provides an incentive for the Company to offer all cost-effective EE and DSM programs. While my direct testimony expressed concern regarding this tenet with a shared savings incentive, the proposed shared savings percentage of 11.5% is high enough that the returns provided on a lower cost effective portfolio will still provide the Company a meaningful incentive. Additionally, by excluding low income and other non-cost effective programs from the calculation of shared savings incentive, the Company's incentive will not be negatively impacted by adding these types of programs, which in some cases may not be cost effective, but on the other hand do advance other highly important societal and policy goals.

### **III. SHARED SAVINGS COST RECOVERY MECHANISM**

1   **Q.   HOW WILL THE COMPANY BE COMPENSATED FOR**  
2       **IMPLEMENTING EE AND DSM PROGRAMS UNDER THE**  
3       **PROPOSED SHARED SAVINGS RECOVERY MECHANISM?**

4   A.   In addition to developing new programs that will be more effective in  
5       reducing energy consumption and demand, the Company is proposing a new  
6       regulatory recovery mechanism with three distinct components: (1) recovery  
7       of the costs the Company incurs to offer and deliver EE and DSM programs to  
8       customers; (2) the recovery of net lost revenues incurred for up to 36 months  
9       of a measure's life for EE programs; and (3) a shared savings incentive that  
10      will allow the Company to share a small portion of the net savings achieved  
11      through its energy efficiency and demand response programs on an annual  
12      basis.

13   **Q.   PLEASE EXPLAIN HOW THE PROPOSED INCENTIVE WOULD BE**  
14      **DETERMINED.**

15   A.   Determining the earned incentive for the Company under the proposed  
16      incentive structure is a relatively simple calculation based on variables the  
17      Company is required to report in the Company's annual energy efficiency  
18      filing. These are the same variables utilized in the Company's originally-  
19      proposed incentive mechanism. First, the net savings eligible for incentive is  
20      determined by subtracting the present value of the annual lifetime energy  
21      efficiency and demand side management program costs (excluding approved  
22      low income programs) from the net present value of the annual lifetime  
23      avoided costs achieved through the Company's programs (excluding approved

1 low income programs). The net savings eligible for incentive is then  
2 multiplied by 11.5%, the shared savings percentage, to determine the  
3 Company's pretax incentive. An illustrative example of the calculation of the  
4 Company's earned incentive is shown below in Table 1.  
5

1

**Table 1.**

<b>Illustrative Incentive Calculation</b>				
<b>Assumptions</b>				
Total Program Cost (including EM&V) = \$60 Million				
Low Income Program Costs (including EM&V) = \$10 Million				
Total Avoided Costs = \$106 Million				
Low Income Avoided Costs = \$6 Million				
<b>Calculations</b>				
Total Avoided Costs (Millions)			\$	106
Low Income Avoided Costs (Millions)				<u>6</u>
Avoided Costs Net of Low Income Programs (Millions)			\$	100
Total Program Costs (Millions)			\$	60
Low Income Program Costs (Millions)				<u>10</u>
Program Costs Net of Low Income Programs (Millions)			\$	50
Avoided Costs Net of Low Income Programs (Millions)			\$	100
Program Costs Net of Low Income Programs (Millions)				<u>50</u>
Net Savings Eligible for Incentive (Millions)			\$	50
Shared Savings Percentage				11.5%
Earned Pre-Tax Incentive (Millions)			\$	5.75

2 **Q. PURSUANT TO ITS AMENDED APPLICATION, PLEASE EXPLAIN**  
3 **HOW PROGRAMS THAT ARE DETERMINED NOT TO BE COST-**  
4 **EFFECTIVE, BUT ARE DEEMED BY THE COMMISSION TO BE**  
5 **APPROPRIATE TO OFFER, WOULD BE TREATED.**

6 A. Duke Energy Carolinas recognizes that there are certain EE programs that  
7 may not be cost-effective, but are nevertheless desirable for societal and  
8 policy reasons. The most common example of this type of program would be  
9 low-income weatherization. With respect to its new recovery mechanism, the  
10 Company proposes that for any EE program that is not cost-effective (but

1 nevertheless is desirable for the Company to implement and is approved by  
2 the Commission), the Company shall be eligible to recover the program costs  
3 and 36 months of the net lost revenues associated with the impacts of the  
4 program. The Company does not seek to earn an incentive on these programs,  
5 but also contends the negative net savings associated with these types of  
6 programs should not be factored into the calculation of the annual shared  
7 savings incentive. In other words, the offering of programs that are not cost-  
8 effective (but are desirable for the Company to implement for other reasons)  
9 should not impact the amount of the incentive the Company earns for  
10 providing cost-effective EE and DSM programs.

11 **Q. WILL THE EVALUATION, MEASUREMENT AND VERIFICATION**  
12 **METHOD THE COMPANY ESTABLISHED DURING THE SAVE-A-**  
13 **WATT PILOT CHANGE?**

14 A. No. Regardless of the recovery model implemented, EE program results need  
15 to be based on the actual results of evaluation, measurement and verification  
16 (“EM&V”) performed by an independent third-party evaluator. In accordance  
17 with Order No. 2012-202, Docket No. 2011-420-E, except for new programs  
18 that have initial impact assumptions based on something other than Carolinas’  
19 program based EM&V, EM&V results will be applied prospectively from the  
20 first day of the month following the completion of the necessary sampling and  
21 data collection upon which the EM&V results are based. For all new  
22 programs with projected impacts based on something other than Carolinas’  
23 system EM&V results, the EM&V will be applied prospectively from the first

1 day participation occurs. This methodology for EM&V application is  
2 consistent with the methodology the Company proposed in North Carolina in  
3 Docket E-7, Sub 1032. Applying the results of EM&V in a consistent manner  
4 will eliminate unnecessary complexities associated with different EM&V  
5 application across the two Duke Energy Carolinas' jurisdictions.

6 **Q. DOES THE VINTAGE YEAR CONCEPT CHANGE UNDER THE**  
7 **NEW RECOVERY MODEL?**

8 A. No. Like the modified Save-a-Watt approach, the proposed recovery  
9 mechanism employs a vintage year concept. A vintage year is the twelve-  
10 month period in which a specific DSM or EE measure is installed for an  
11 individual participant or a group of participants. Duke Energy Carolinas is  
12 executing its program based on vintage years that are twelve-month, calendar  
13 year periods for administrative ease. Based on the revenue recovery attributes  
14 of the proposed mechanism in which customer participation in the Company's  
15 DSM and EE programs and corresponding responsibility to pay Rider EE are  
16 determined on a vintage year basis, Duke Energy Carolinas is again requesting  
17 to recover costs based on the vintage year concept.

18 **Q. HOW DOES THE COMPANYS AMENDED APPLICATION CREATE**  
19 **VALUE FOR CUSTOMERS?**

20 A. The Company's proposed portfolio and recovery mechanism will provide the  
21 platform to continue to deliver the kind of value that was successfully  
22 demonstrated during the Save-a-Watt pilot. The proposed portfolio of  
23 programs will continue to empower customers and give them a means by

1 which to take control of their bills. It will also continue to allow customers to  
2 reduce their energy and demand to generate system avoided cost benefits that  
3 will lower the overall cost to serve customers. The new proposed recovery  
4 and incentive mechanism creates value as it appropriately incentivizes the  
5 Company to deliver cost-effective EE and DSM programs and to aggressively  
6 manage the portfolio to improve and optimize its cost-effectiveness.

7 **IV. PORTFOLIO OF EE AND DSM PROGRAMS**

8 **Q. PLEASE DESCRIBE THE MINOR CHANGES OR CLARIFICATIONS**  
9 **TO THE PORTFOLIO OF EE AND DSM PROGRAMS THAT DUKE**  
10 **ENERGY CAROLINAS ORIGINALLY PROPOSED WITH ITS**  
11 **APPLICATION.**

12 A. As mentioned earlier, the Amended Application makes a specific clarification  
13 regarding the type of customer projects that would be eligible for an incentive  
14 under two of the Company's proposed non-residential programs. With regard  
15 to the Company's Non-Residential Smart Saver® Custom Program and Non-  
16 Residential Smart Saver® Custom Energy Assessments Program, the  
17 Company wants to clarify that they do not exclude bottom-cycling CHP or the  
18 waste heat recovery components of topping-cycle CHP.

19 **Q. DOES THE COMPANY'S AMENDED APPLICATION MAKE ANY**  
20 **OTHER CLARIFICATIONS WITH RESPECT TO THE PROPOSED**  
21 **PORTFOLIO OF PROGRAMS?**

22 A. Yes. The other important change or clarification is that in order to avoid the  
23 complications associated with a set expiration of the portfolio, unlike under



1 the modified Save-a-Watt pilot, the approval of the Company's proposed  
2 energy efficiency and demand response programs is not tied to the term of the  
3 recovery mechanism and will not have an explicit date of termination.

4 **Q. WILL THE COMPANY HAVE A FINANCIAL INCENTIVE TO**  
5 **PURSUE EXTENSIVE EE AND DSM PROGRAMS PURSUANT TO**  
6 **ITS AMENDED APPLICATION?**

7 A. Yes. The new proposed recovery model will provide the Company with the  
8 opportunity to earn an incentive on demand-side resources with potential  
9 returns that are similar to the returns it is allowed for meeting customers'  
10 demands with supply-side resources. Under its new proposal, Duke Energy  
11 Carolinas will have the ability to earn a return that will range from slightly  
12 lower to potentially higher than it is allowed supply side returns, depending on  
13 how cost-effectively it delivers its EE and DSM programs. The proposed  
14 shared savings incentive provides the appropriate motivation for the Company  
15 to aggressively try to deliver as much cost-effective EE and DSM as possible.

16 The Amended Application and the Company's demonstrated track  
17 record offering its customers EE and DSM programs should address any  
18 concern that Duke Energy Carolinas will simply concentrate its efforts on  
19 low-cost conservation efforts and then may stop when it has obtained the  
20 "low-hanging fruit." First, the proposed exclusion of approved low income  
21 and other non-cost effective programs approved for societal benefits means  
22 the Company's incentive will not be negatively impacted by offering  
23 important programs of this type. Second, by continuing to utilize the

1 collaborative process to create transparency regarding its program offerings  
2 and their on-going performance, all parties will have the ability to provide  
3 important feedback and recommendations on ways to increase the  
4 effectiveness and magnitude of energy and capacity savings realized through  
5 the Company's portfolio. Finally, Duke Energy Carolinas has demonstrated  
6 during the Save-a-Watt pilot that given the ability to earn an incentive return  
7 that is similar in magnitude to the one being proposed by the Company in this  
8 proceeding, it will in fact aggressively pursue offering its customers EE and  
9 DSM programs.

10 **Q. DOES THE COMPANY'S AMENDED APPLICATION SPECIFICCLLY**  
11 **ADDRESS THE GOOD FAITH PERORMANCE TARGETS AGREED**  
12 **TO IN THE SETTLEMENT WITH ENVIRONMENTAL**  
13 **INTERVENORS IN SOUTH CAROLINA PUBLIC SERVICE**  
14 **COMMISSION DOCKETS 2011-158-E AND 2011-68-E?**

15 A. Yes. Consistent with its Settlement with the environmental interveners, the  
16 Company is proposing a bonus incentive, an addition to its proposed shared  
17 savings incentive mechanism. In order to create further incentive to  
18 acknowledge and motivate the Company's good faith effort to meet the  
19 Performance Goals established in the Settlement, the Company's Amended  
20 Applications seeks to create an additional bonus incentive of \$100,000, if the  
21 Company achieves incremental energy savings of 1% of the prior year's retail  
22 electricity sales in any year during the five-year 2014-2018 period.

23

**V. PROJECTED RESULTS**

**Q. PLEASE PROVIDE A PROJECTION OF THE RESULTS THE COMPANY EXPECTS TO SEE FROM IMPLEMENTATION OF THIS PORTFOLIO.**

A. The Amended Application does not impact the projected results from the Company's proposed portfolio. Consistent with its practices during the Save-a-Watt pilot, the Company will update the actual and projected EE achievement levels in its annual Rider EE filing to account for any program or measure additions based on the performance of programs, market conditions, economics and consumer demand. A projection of the results for the next four years, as well as the associated projected program expense for the Company's new portfolio of programs, are summarized in Table 2 below:

**Table 2.**

**Duke Energy Carolinas System (SC & NC) EE/DSM Portfolio Projected Results**

	2014	2015	2016	2017
Annual System MW	888	970	1,012	1,049
Annual System Net MWh	396,906	408,673	421,892	428,871
Annual Program Costs (Millions)	\$101	\$105	\$107	\$111

**Q. DOES THE COMPANY PLAN TO CONTINUE ITS CAROLINAS EE COLLABORATIVE AS PART OF ITS AMENDED APPLICATION?**

A. Yes. The quarterly schedule of Carolinas Energy Efficiency Collaborative ("Collaborative") meetings gives the Company an opportunity to communicate on a regular basis regarding program performance and EM&V

1 activity and to receive feedback regarding program additions and potential  
2 program improvements. While it has taken some time to refine the process  
3 and reach agreement on the appropriate format to present information, the  
4 Collaborative has proven an effective way to gain stakeholder support and  
5 eliminate unnecessarily contentious proceedings.

## 6 **VI. CONCLUSION**

### 7 **Q. WHAT IS THE COMPANY SEEKING THE COMMISSION TO** 8 **APPROVE?**

9 A. Duke Energy Carolinas requests that the Commission approve the new cost  
10 recovery mechanism as proposed and the resulting Vintage 2014 of Rider EE  
11 charges (including gross receipts tax and regulatory fee) of 0.3182 cents per  
12 kWh for residential customers, 0.1103 cents per kWh for non-residential  
13 customers participating in Vintage 2014 EE programs, and 0.0990 cents per  
14 kWh for non-residential customers participating in Vintage 2014 DSM  
15 programs.

16 Additionally, the Company is requesting that the Commission approve  
17 the proposed portfolio of EE and DSM programs contained in the Company's  
18 Application. The majority of the programs in the Company's current portfolio  
19 were approved by the Commission as a component of the four-year Save-a-  
20 Watt pilot, which means their approval will expire on December 31, 2013.  
21 Without approval of the Company's proposed portfolio of programs and  
22 recovery mechanism, the Company will not have EE and DSM programs to  
23 offer its customers on January 1, 2014.

1   **Q.   WHY IS COMMISSION APPROVAL OF THE COMPANY’S**  
2       **PROPOSED PORTFOLIO AND COST RECOVERY MECHANISM IN**  
3       **THE PUBLIC INTEREST?**

4   A.   Duke Energy Carolinas has heard loudly from customers and other  
5       stakeholders as well that they want the Company to do more to support EE  
6       and DSM. The Company’s proposed portfolio and recovery mechanism  
7       leverages all the progress and strides that have been achieved during the Save-  
8       a-Watt pilot and attempts to improve upon it by making the recovery and  
9       utility incentive calculation far simpler and transparent. While simpler and  
10      more transparent, the proposed recovery mechanism still aligns with the tenets  
11      of being paid for performance with respect to what the Company controls and  
12      most importantly being a good steward of customers’ dollars as customers  
13      retain up to 88.5% of the net savings achieved through the Company’s EE and  
14      DSM programs. In addition, this approach also allows the Company to do the  
15      following:

- 16           • Lower bills for customers on average, compared to the bills that would  
17           result from additional generation resources;
- 18           • Offer the potential to substantially lower bills for customers who  
19           participate in EE and/or DSM programs; and
- 20           • Provide more options to help customers manage their bills and  
21           environmental concerns in a rising energy price environment.

22   **Q.   DOES THIS CONCLUDE YOUR PRE-FILED TESTIMONY**  
23       **SUPPORTING THE COMPANY’S AMENDED APPLICATION?**

1    A.    Yes.

Duke Energy Carolinas LLC  
Vintage 2014 Estimate for January 1, 2014 to December 31, 2014  
Docket No. 2013-298-E  
Load Impacts and Estimated Revenue Requirements, excluding Lost Revenue by Program

Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	NPV of Avoided Cost	System Cost	Earned Utility Incentive: Shared Savings at 11.5%	System Cost Plus Incentive	SC Retail kWh Sales Allocation Factor (McManeus Revised Exhibit 3)	SC Residential Revenue Requirement
EE Programs								
Appliance Recycling Program	3,949	16,819,425	\$ 8,038,444	\$ 2,333,274	\$ 656,095	\$ 2,989,369	27.1368100%	\$ 811,219
Energy Efficiency Education	518	5,225,951	\$ 2,833,892	\$ 2,054,237	\$ 89,660	\$ 2,143,897	27.1368100%	\$ 581,785
Energy Efficient Appliances and Devices	2,946	27,602,478	\$ 9,147,007	\$ 5,929,912	\$ 369,966	\$ 6,299,878	27.1368100%	\$ 1,709,586
HVAC Energy Efficiency	2,963	5,248,319	\$ 6,111,799	\$ 6,272,038	\$ (18,427)	\$ 6,253,610	27.1368100%	\$ 1,697,030
Income Qualified Energy Efficiency and Weatherization Assistance	2,405	10,977,497	\$ 5,931,798	\$ 11,250,749	\$ -	\$ 11,250,749	27.1368100%	\$ 3,053,094
Multi-Family Energy Efficiency	853	9,923,970	\$ 2,988,461	\$ 2,655,776	\$ 38,259	\$ 2,694,035	27.1368100%	\$ 731,075
Energy Assessments	610	4,928,548	\$ 5,870,214	\$ 1,862,993	\$ 460,830	\$ 2,323,824	27.1368100%	\$ 630,612
Subtotal	14,243	80,726,188	\$ 40,921,615	\$ 32,358,979	\$ 1,596,382	\$ 33,955,362		\$ 9,214,402
My Home Energy Report (1)	35,166	149,783,507	\$ 9,849,716	\$ 8,515,669	\$ 153,415	\$ 8,669,085	27.1368100%	\$ 2,352,513
Total for Residential Energy Efficiency Programs	49,409	230,509,695	\$ 50,771,331	\$ 40,874,649	\$ 1,749,798	\$ 42,624,446		\$ 11,566,915
								SC Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
Total DSM Programs (2)	813,816	-	\$ 112,388,163	\$ 37,727,788	\$ 8,585,943	\$ 46,313,731	10.7248000%	\$ 4,967,055
Total Residential Revenue Requirement								\$ 16,533,970
								SC Retail kWh Sales Allocation Factor (McManeus Revised Exhibit 3)
								SC Non-Residential Revenue Requirement
Non-Residential Programs								
EE Programs								
Non Residential Smart Saver Custom Technical Assessments	1,906	16,694,327	\$ 10,095,899	\$ 3,655,070	\$ 740,695	\$ 4,395,765	27.1368100%	\$ 1,192,870
Non Residential Smart Saver Custom	8,528	74,701,126	\$ 39,796,626	\$ 8,554,183	\$ 3,592,881	\$ 12,147,064	27.1368100%	\$ 3,296,326
Energy Management Information Systems	571	3,430,703	\$ 857,525	\$ 489,315	\$ 42,344	\$ 531,659	27.1368100%	\$ 144,275
Non Residential Smart Saver Energy Efficient Food Service Products	67	1,066,435	\$ 953,223	\$ 134,413	\$ 94,163	\$ 228,577	27.1368100%	\$ 62,028
Non Residential Smart Saver Energy Efficient HVAC Products	2,285	5,934,420	\$ 6,769,950	\$ 1,394,496	\$ 618,177	\$ 2,012,673	27.1368100%	\$ 546,175
Non Residential Smart Saver Energy Efficient Lighting Products	10,906	65,274,685	\$ 39,144,136	\$ 6,931,839	\$ 3,704,414	\$ 10,636,253	27.1368100%	\$ 2,886,340
Non Residential Energy Efficient Pumps and Drives Products	689	5,698,027	\$ 5,377,619	\$ 748,201	\$ 532,383	\$ 1,280,584	27.1368100%	\$ 347,510
Non Residential Energy Efficient ITEE	80	2,970,668	\$ 1,202,235	\$ 335,776	\$ 99,643	\$ 435,419	27.1368100%	\$ 118,159
Non Residential Energy Efficient Process Equipment Products	15	76,829	\$ 76,889	\$ 19,748	\$ 6,571	\$ 26,319	27.1368100%	\$ 7,142
Total for Non-Residential Energy Efficiency Programs	25,047	175,847,218	\$ 104,274,102	\$ 22,263,041	\$ 9,431,272	\$ 31,694,313		\$ 8,600,825
								SC Non-Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
Total DSM Programs (2)	813,816	-	\$ 112,388,163	\$ 37,727,788	\$ 8,585,943	\$ 46,313,731	14.4714000%	\$ 6,702,245
Total Non-Residential Revenue Requirement								\$ 15,303,071
								SC Retail Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
Total DSM Program Breakdown								
Power Manager (Residential)	354,265	-	\$ 48,563,029	\$ 14,596,662	\$ 3,906,132	\$ 18,502,794		
Power Share CallOption (Non-Residential)	28,679	-	\$ 4,495,414	\$ 1,829,405	\$ 306,591	\$ 2,135,996		
Power Share (Non-Residential)	430,872	-	\$ 59,329,720	\$ 21,301,721	\$ 4,373,220	\$ 25,674,941		
Total DSM	813,816	-	\$ 112,388,163	\$ 37,727,788	\$ 8,585,943	\$ 46,313,731	25.1962000%	\$ 11,669,300
Total Program	888,272	406,356,913	\$ 267,433,596	\$ 100,865,477	\$ 19,767,013	\$ 120,632,490		\$ 31,837,040

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintage  
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas LLC  
Vintage 2015 Estimate for January 1, 2015 to December 31, 2015  
Docket Number 2103-298-E  
Load Impacts and Estimated Revenue Requirements, excluding Lost Revenue by Program

Line	Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	NPV of Avoided Cost	System Cost	Earned Utility Incentive: Shared Savings at 11.5%	System Cost Plus Incentive	SC Retail kWh Sales Allocation Factor (McManeus Revised Exhibit 3)	SC Residential Revenue Requirement
EE Programs									
1	Appliance Recycling Program	3,949	16,819,425	\$ 8,473,641	\$ 2,332,566	\$ 706,224	\$ 3,038,789	27.1368100%	\$ 824,630
2	Energy Efficiency Education	518	5,226,003	\$ 2,988,275	\$ 2,052,544	\$ 107,609	\$ 2,160,153	27.1368100%	\$ 586,197
3	Energy Efficient Appliances and Devices	3,256	30,662,529	\$ 10,970,933	\$ 6,464,750	\$ 518,211	\$ 6,982,961	27.1368100%	\$ 1,894,953
4	HVAC Energy Efficiency	3,066	5,425,996	\$ 6,580,755	\$ 6,773,101	\$ (22,120)	\$ 6,750,981	27.1368100%	\$ 1,832,001
5	Income Qualified Energy Efficiency and Weatherization Assistance	2,225	10,208,640	\$ 5,849,057	\$ 11,186,960	\$ -	\$ 11,186,960	27.1368100%	\$ 3,035,784
6	Multi-Family Energy Efficiency	872	10,489,961	\$ 3,780,039	\$ 3,030,183	\$ 86,233	\$ 3,116,416	27.1368100%	\$ 845,696
7	Energy Assessments	610	4,928,548	\$ 6,094,136	\$ 1,860,054	\$ 486,919	\$ 2,346,973	27.1368100%	\$ 636,894
8	Subtotal	14,496	83,761,102	\$ 44,736,836	\$ 33,700,157	\$ 1,883,077	\$ 35,583,234		\$ 9,656,155
9	My Home Energy Report (1)	35,517	151,281,311	\$ 10,661,479	\$ 8,586,742	\$ 238,595	\$ 8,825,337	27.1368100%	\$ 2,394,915
10	Total for Residential Energy Efficiency Programs	50,013	235,042,413	\$ 55,398,315	\$ 42,286,899	\$ 2,121,672	\$ 44,408,571		\$ 12,051,069
									SC Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
11	Total DSM Programs (2)	895,146	-	\$ 127,631,197	\$ 38,955,517	\$ 10,197,703	\$ 49,153,220	10.7248000%	\$ 5,271,585
12	Total Residential Revenue Requirement								\$ 17,322,654
Non-Residential Programs									
EE Programs									
13	Non Residential Smart Saver Custom Technical Assessments	2,001	17,528,673	\$ 11,185,483	\$ 3,919,646	\$ 835,571	\$ 4,755,217	27.1368100%	\$ 1,290,414
14	Non Residential Smart Saver Custom	8,954	78,437,169	\$ 44,092,851	\$ 9,364,687	\$ 3,993,739	\$ 13,358,426	27.1368100%	\$ 3,625,051
15	Energy Management Information Systems	-	-	\$ -	\$ -	\$ -	\$ -	27.1368100%	\$ -
16	Non Residential Smart Saver Energy Efficient Food Service Products	99	1,369,327	\$ 1,398,405	\$ 216,096	\$ 135,965	\$ 352,062	27.1368100%	\$ 95,538
17	Non Residential Smart Saver Energy Efficient HVAC Products	2,435	6,286,567	\$ 7,443,739	\$ 1,493,540	\$ 684,273	\$ 2,177,813	27.1368100%	\$ 590,989
18	Non Residential Smart Saver Energy Efficient Lighting Products	11,509	69,215,925	\$ 44,205,518	\$ 7,561,028	\$ 4,214,116	\$ 11,775,144	27.1368100%	\$ 3,195,399
19	Non Residential Energy Efficient Pumps and Drives Products	724	5,982,928	\$ 5,954,571	\$ 788,841	\$ 594,059	\$ 1,382,900	27.1368100%	\$ 375,275
20	Non Residential Energy Efficient ITEE	113	4,598,650	\$ 1,740,107	\$ 543,297	\$ 137,633	\$ 680,930	27.1368100%	\$ 184,783
21	Non Residential Energy Efficient Process Equipment Products	16	80,184	\$ 83,264	\$ 20,850	\$ 7,178	\$ 28,028	27.1368100%	\$ 7,606
22	Total for Non-Residential Energy Efficiency Programs	25,851	183,499,423	\$ 116,103,938	\$ 23,907,986	\$ 10,602,534	\$ 34,510,521		\$ 9,365,054
									SC Non-Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
23	Total DSM Programs(2)	895,146	-	\$ 127,631,197	\$ 38,955,517	\$ 10,197,703	\$ 49,153,220	14.4714000%	\$ 7,113,159
24	Total Non-Residential Revenue Requirement								\$ 16,478,213
									SC Retail Peak Demand Allocation Factor (McManeus Revised Exhibit 3)
Total DSM Program Breakdown									
25	Power Manager (Residential)	407,690	-	\$ 58,066,207	\$ 14,126,216	\$ 5,053,099	\$ 19,179,315		
26	Power Share CallOption (Non-Residential)	33,990	-	\$ 5,476,761	\$ 2,174,587	\$ 379,750	\$ 2,554,337		
27	Power Share (Non-Residential)	453,466	-	\$ 64,088,229	\$ 22,654,714	\$ 4,764,854	\$ 27,419,568		
28	Total DSM	895,146	-	\$ 127,631,197	\$ 38,955,517	\$ 10,197,703	\$ 49,153,220	25.1962000%	\$ 12,384,744
29	Total Program	971,010	418,541,836	\$ 299,133,450	\$ 105,150,402	\$ 22,921,909	\$ 128,072,311		\$ 33,800,868

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintage





Duke Energy Carolinas LLC  
Vintage 2017 Estimate for January 1, 2017 to December 31, 2017  
Docket Number 2013-298-E  
Load Impacts and Estimated Revenue Requirements, excluding Lost Revenue by Program

Line	Residential Programs	System kW Reduction -	System Energy	NPV of Avoided Cost	System Cost	Earned Utility Incentive: Shared Savings @ 11.5%	System Cost Plus Incentive	SC Retail kWh Sales	SC Residential Revenue
		Summer Peak	Reduction (kWh)					Allocation Factor (McManeus Revised Exhibit 3)	
	EE Programs								
1	Appliance Recycling Program	3,949	16,819,425	\$ 9,353,289	\$ 2,334,558	\$ 807,154	\$ 3,141,712	27.1368100%	\$ 852,561
2	Energy Efficiency Education	567	5,715,941	\$ 3,609,082	\$ 2,285,779	\$ 152,180	\$ 2,437,959	27.1368100%	\$ 661,584
3	Energy Efficient Appliances and Devices	2,656	24,795,447	\$ 11,499,162	\$ 6,832,039	\$ 536,719	\$ 7,368,758	27.1368100%	\$ 1,999,646
4	HVAC Energy Efficiency	3,245	5,737,359	\$ 7,509,443	\$ 6,992,973	\$ 59,394	\$ 7,052,367	27.1368100%	\$ 1,913,787
5	Income Qualified Energy Efficiency and Weatherization Assistance	2,225	10,208,640	\$ 6,470,475	\$ 11,183,746	\$ -	\$ 11,183,746	27.1368100%	\$ 3,034,912
6	Multi-Family Energy Efficiency	1,130	13,882,065	\$ 5,783,675	\$ 4,208,071	\$ 181,195	\$ 4,389,265	27.1368100%	\$ 1,191,107
7	Energy Assessments	671	5,421,402	\$ 7,215,594	\$ 2,071,339	\$ 591,589	\$ 2,662,928	27.1368100%	\$ 722,634
8	Subtotal	14,443	82,580,278	\$ 51,440,720	\$ 35,908,504	\$ 2,328,231	\$ 38,236,735		\$ 10,376,230
9	My Home Energy Report (1)	36,231	154,321,967	\$ 10,458,760	\$ 8,348,308	\$ 242,702	\$ 8,591,010	27.1368100%	\$ 2,331,326
10	Total for Residential Energy Efficiency Programs	50,674	236,902,245	\$ 61,899,480	\$ 44,256,812	\$ 2,570,933	\$ 46,827,745		\$ 12,707,556
								SC Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)	
11	Total DSM Programs (2)	970,506	-	\$ 145,100,691	\$ 39,218,333	\$ 12,176,471	\$ 51,394,804	10.7248000%	\$ 5,511,990
12	Total Residential Revenue Requirement								\$ 18,219,546
	Non-Residential Programs								
	EE Programs								
13	Non Residential Smart Saver Custom Technical Assessments	2,206	19,325,726	\$ 13,749,209	\$ 4,525,607	\$ 1,060,714	\$ 5,586,322	27.1368100%	\$ 1,515,949
14	Non Residential Smart Saver Custom	9,872	86,477,007	\$ 54,195,857	\$ 11,254,590	\$ 4,938,246	\$ 16,192,835	27.1368100%	\$ 4,394,219
15	Energy Management Information Systems	-	-	\$ -	\$ -	\$ -	\$ -	27.1368100%	\$ -
16	Non Residential Smart Saver Energy Efficient Food Service Products	99	1,448,849	\$ 1,507,754	\$ 220,326	\$ 148,054	\$ 368,380	27.1368100%	\$ 99,967
17	Non Residential Smart Saver Energy Efficient HVAC Products	2,769	7,068,272	\$ 8,989,709	\$ 1,722,653	\$ 835,711	\$ 2,558,364	27.1368100%	\$ 694,258
18	Non Residential Smart Saver Energy Efficient Lighting Products	12,658	76,016,443	\$ 53,205,127	\$ 8,451,811	\$ 5,146,631	\$ 13,598,442	27.1368100%	\$ 3,690,183
19	Non Residential Energy Efficient Pumps and Drives Products	798	6,596,178	\$ 7,302,679	\$ 879,338	\$ 738,684	\$ 1,618,022	27.1368100%	\$ 439,080
20	Non Residential Energy Efficient ITEE	115	6,027,476	\$ 2,804,277	\$ 720,268	\$ 239,661	\$ 959,929	27.1368100%	\$ 260,494
21	Non Residential Energy Efficient Process Equipment Products	18	88,864	\$ 101,744	\$ 23,718	\$ 8,973	\$ 32,691	27.1368100%	\$ 8,871
22	Total for Non-Residential Energy Efficiency Programs	28,536	203,048,815	\$ 141,856,356	\$ 27,798,310	\$ 13,116,675	\$ 40,914,985		\$ 11,103,022
								SC Non-Residential Peak Demand Allocation Factor (McManeus Revised Exhibit 3)	
23	Total DSM Programs (2)	970,506	-	\$ 145,100,691	\$ 39,218,333	\$ 12,176,471	\$ 51,394,804	14.4714000%	\$ 7,437,548
24	Total Non-Residential Revenue Requirement								\$ 18,540,569
	Total DSM Program Breakdown							SC Retail Peak Demand Allocation Factor (McManeus Revised Exhibit 3)	
25	Power Manager (Residential)	423,466	-	\$ 63,171,217	\$ 11,330,154	\$ 5,961,722	\$ 17,291,876		
26	Power Share CallOption (Non-Residential)	44,612	-	\$ 7,544,756	\$ 2,867,754	\$ 537,855	\$ 3,405,609		
27	Power Share (Non-Residential)	502,428	-	\$ 74,384,718	\$ 25,020,425	\$ 5,676,894	\$ 30,697,319		
28	Total DSM	970,506	-	\$ 145,100,691	\$ 39,218,333	\$ 12,176,471	\$ 51,394,804	25.1962000%	\$ 12,949,538
29	Total Program	1,049,716	439,951,060	\$ 348,856,527	\$ 111,273,455	\$ 27,864,079	\$ 139,137,534		\$ 36,760,116

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintage  
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas LLC  
2014-2017 Summary Estimate - January 1, 2014 - December 31, 2017  
Docket Number 2013-298-E  
Load Impacts and Avoided Cost Revenue Requirements by Program

Line		System kW Reduction - Summer Peak	System Energy Reduction (kWh)	NPV of Avoided Cost	System Cost	Earned Utility Incentive: Shared Savings at 11.5%	System Cost Plus Incentive	SC Retail kWh Sales Allocation Factor (McManeus Revised Exhibit 3)	SC Residential Revenue Requirement
Residential Programs									
EE Programs									
1	Appliance Recycling Program	15,795	67,277,699	34,739,583	\$ 9,335,645	\$ 2,921,453	\$ 12,257,098	27.1368100%	\$ 3,326,185
2	Energy Efficiency Education	2,171	21,883,837	12,854,638	\$ 8,679,725	\$ 480,115	\$ 9,159,840	27.1368100%	\$ 2,485,688
3	Energy Efficient Appliances and Devices	11,977	112,435,645	43,266,305	\$ 26,045,436	\$ 1,980,400	\$ 28,025,836	27.1368100%	\$ 7,605,318
4	HVAC Energy Efficiency	12,444	22,020,379	27,256,674	\$ 26,958,067	\$ 34,340	\$ 26,992,407	27.1368100%	\$ 7,324,878
5	Income Qualified Energy Efficiency and Weatherization Assistance	9,079	41,603,416	24,389,834	\$ 44,822,036	\$ -	\$ 44,822,036	27.1368100%	\$ 12,163,271
6	Multi-Family Energy Efficiency	3,873	46,607,736	17,293,375	\$ 13,486,813	\$ 437,755	\$ 13,924,567	27.1368100%	\$ 3,778,683
7	Energy Assessments	2,501	20,207,046	25,510,411	\$ 7,666,149	\$ 2,052,090	\$ 9,718,239	27.1368100%	\$ 2,637,220
8	Subtotal	57,840	332,035,759	185,310,820	\$ 136,993,872	\$ 7,906,152	\$ 144,900,024		\$ 39,321,244
9	My Home Energy Report (1)	36,231	154,321,967	154,321,967	\$ 34,123,859	\$ 866,153	\$ 34,990,013	27.1368100%	\$ 9,495,173
10	Total for Residential Energy Efficiency Programs	94,071	486,357,726	339,632,787	\$ 171,117,731	\$ 8,772,306	\$ 179,890,037		\$ 48,816,418

**Duke Energy Carolinas LLC**  
**Shared Savings Incentive Calculation**  
**Docket No. 2013-298-E**  
**Estimate January 1, 2014- December 31, 2017**

Line			2014	2015	2016	2017
1	NPV of AC - Res EE	Duff Revised Exhibit 1, Line 10-Line 5	44,839,531	49,549,258	52,758,818	55,429,004
2	NPV of AC - Non Res EE	Duff Revised Exhibit 1, Line 22	104,274,103	116,103,938	128,430,385	141,856,355
3	NPV of AC - DSM	Duff Revised Exhibit 1, Line 28	112,388,164	127,631,198	136,695,706	145,100,691
4	<b>Total NPV of Avoided Costs*</b>	<b>A</b>	<b>\$ 261,501,798</b>	<b>\$ 293,284,394</b>	<b>\$ 317,884,909</b>	<b>\$ 342,386,051</b>
5	Program Costs - Res EE	Duff Revised Exhibit 1, Line 10-Line 5	29,623,900	31,099,940	32,498,789	33,073,066
6	Program Costs - Non Res EE	Duff Revised Exhibit 1, Line 22	22,263,041	23,907,986	26,017,609	27,798,310
7	Program Costs - DSM	Duff Revised Exhibit 1, Line 28	37,727,788	38,955,517	37,604,813	39,218,333
8	<b>Total Program Costs *</b>	<b>B</b>	<b>\$ 89,614,728</b>	<b>\$ 93,963,442</b>	<b>\$ 96,121,211</b>	<b>\$ 100,089,710</b>
9	<b>Net Savings</b>	<b>A-B</b>	<b>\$ 171,887,070</b>	<b>\$ 199,320,952</b>	<b>\$ 221,763,698</b>	<b>\$ 242,296,341</b>
10	<b>Sharing Percentage</b>		<b>11.50%</b>	<b>11.50%</b>	<b>11.50%</b>	<b>11.50%</b>
11	Shared Savings - Res EE	Duff Revised Exhibit 1, Line 10	1,749,798	2,121,672	2,329,903	2,570,933
12	Shared Savings - Non Res EE	Duff Revised Exhibit 1, Line 22	9,431,272	10,602,534	11,777,469	13,116,675
13	Shared Savings - DSM	Duff Revised Exhibit 1, Line 28	8,585,943	10,197,703	11,395,453	12,176,471
14	<b>Total Shared Savings</b>	Duff Revised Exhibit 1, Line 29	<b>\$ 19,767,013</b>	<b>\$ 22,921,909</b>	<b>\$ 25,502,825</b>	<b>\$ 27,864,079</b>

\* Excludes all NPV of Avoided Costs and Program Costs for programs with UCTs <1.0 yet are deemed by the commission to be appropriate due social benefits (i.e. low income programs).